

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Jill Marshall)
MEETING DATE: January 23, 2007

ITEM: 13

SUBJECT: **Proposed Amendment to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to Establish New Water Quality Objectives and a Total Maximum Daily Load (TMDL) and Implementation Plan for Mercury in the Walker Creek Watershed**—Hearing to Consider Adoption of Proposed Basin Plan amendment

CHRONOLOGY: August 2006 – Public Notice of proposed Basin Plan amendment
October 2006 – Hearing to receive testimony on proposed Basin Plan amendment
November 2006 – Public Notice of proposed revised Basin Plan amendment

DISCUSSION: At this hearing, the Board will consider adopting a Tentative Resolution (Appendix A) amending the Basin Plan to establish new mercury water quality objectives for mercury in the Walker Creek watershed, which includes Soulajule Reservoir, along with a TMDL and implementation plan to achieve it. Supporting documentation is contained in the Staff Report (Appendix B) and Responses to Comments (Appendix C). The Responses to Comments address all written comments submitted (Appendices D and E) and testimony from the first hearing in October 2006 (Appendix F).

Mercury pollution in this watershed results from the operations of four mercury mines in the late 1960s, and a large mercury processing facility at the Gambonini Mine. U.S. EPA and the Water Board successfully cleaned up the Gambonini Mine. However, legacy deposits of mercury downstream from the Gambonini Mine site in Walker Creek and in Soulajule Reservoir remain a problem. The proposed TMDL puts forth a strategy for addressing all remaining sources.

The overall goal of this action is to reduce mercury levels in these waterbodies so that humans can safely consume local sportfish and wildlife are protected. To these ends, the proposed Basin Plan amendment will:

- Establish two new fish tissue-based water quality objectives for mercury in these watersheds, designed to protect aquatic organisms and wildlife
- Vacate the Basin Plan's outdated four-day average water quality objective for mercury as it applies to these waterbodies
- Establish a concentration-based TMDL to attain mercury water quality standards in the Walker Creek watershed
- Establish TMDL allocations for sources of mercury-laden sediment and methylmercury production in the watershed
- Establish an implementation plan for the TMDL and water quality objectives that builds on previous and current efforts to minimize mercury discharges and enhance stream habitat

- Establish a plan and schedule for evaluating and monitoring progress towards meeting the TMDL targets

Subsequent to the October 2006 testimony hearing, staff revised the proposed Basin Plan amendment and supporting staff report, based on comments received from U.S. EPA and the Marin Municipal Water District (MMWD), and to include analyses omitted in the August 2006 public noticed package. Due to the extent of the revisions, we provided a new 45-day public comment period. The revisions to the first package are described in Part II of the Responses to Comments:

- In response to U.S. EPA's concern for protecting human health, we demonstrate that the proposed fish tissue water quality objectives not only protect wildlife, but also protect humans who choose to eat fish from the watershed.
- In response to U.S. EPA's concerns that our initial proposed allocation to Soulajule Reservoir was insufficient to protect beneficial uses, we revised the allocation to a methylmercury (the most bioavailable form of mercury) water concentration, replacing a total mercury water concentration.
- In response to MMWD's assertion that no mercury mine sites or tailings piles exist on its property surrounding Soulajule Reservoir, we conducted a joint inspection and aerial photo analysis of the surrounding watershed. While we did observe remnants of mine operations along the reservoir shoreline, we did not observe any mining waste that could come into contact with stormwater runoff. Therefore, we deleted the requirement that MMWD apply for coverage under the Industrial Stormwater General NPDES Permit.

We received three comment letters during the second comment period: one from U.S. EPA and two from MMWD.

In its comment letter U.S. EPA states:

We commend your staff for their hard work on developing these mercury objectives and on completing these difficult TMDL analyses. We can support both the new water quality objectives and the TMDLs, and urge their adoption at the upcoming hearing on January 23, 2007.

MMWD General Manager Paul Helliker reiterates the District's commitment to monitoring; questions whether Soulajule Reservoir is impacted by mining; and requests clarification on the targets, load allocations, implementation measures, as well as the Water Board's regulatory authority. In a second letter from MMWD, District staff express concern with the laboratory detection limit for the Soulajule Reservoir TMDL allocation. Our responses to these concerns are in Part I of the Responses to Comments. To summarize briefly:

- MMWD asserts that the elevated mercury levels in Soulajule fish are the result of naturally occurring mercury and no different than other Bay Area reservoir fish. We disagree. Our updated analysis shows that fish of the same type and size from nearby reservoirs have lower mercury levels than those found in Soulajule. The Basin Plan amendment requires MMWD to conduct additional studies so that we can better understand the problem and identify solutions. This request is within our regulatory authority.
- In response to MMWD's questions we clarify targets, allocation types, implementation requirements, and the relationships among the individual TMDL elements.

- In response to the District's concern with achieving the detection limit for the allocation we propose for Soulajule Reservoir, we provide information on the analytical method and note that industrial and municipal San Francisco Bay dischargers routinely meet the recommended U.S. EPA method detection limit.
- We have revised the Soulajule allocation to clarify that the allocation is for dissolved methylmercury.

We have worked closely with landowners and other stakeholders in the watershed for many years. This TMDL builds upon successful early implementation efforts such as the Gambonini Mine cleanup and numerous creek restoration projects. We look forward to working with MMWD and local landowners as we move forward with additional cleanup projects and continue to better understand mercury cycling in this watershed. Walker Creek is a major tributary to Tomales Bay, which is impaired by mercury due to Walker Creek discharges. The actions called for in this TMDL will serve as the building blocks for the Tomales Bay mercury TMDL.

RECOMMEN-
DATION

Adopt the Tentative Resolution

APPENDICES:

- A. Tentative Resolution with Proposed Basin Plan Amendment (Exhibit A)
- B. Staff Report
- C. Responses to Comments
- D. Comment letters received during the comment period ending in January 2007
- E. Comment letters received during the comment period ending in September 2006
- F. October 11, 2006 Hearing Transcript